

## Demand and supply chains in Nature-based Solutions (NbS): Key sectors shaping the market

### About this brief

This brief presents insights of the Invest4Nature (I4N) **systematic literature review on demand and supply chain of NbS**, including the role of different sectors in NbS implementation, replication and upscaling.

It highlights:

- ▶ Key sectors driving supply and demand for NbS
- ▶ Drivers and barriers for NbS uptake
- ▶ Policy recommendations to support NbS growth

For more details and sources, read the Invest4Nature report:

**Report on demand and supply chains in NbS (Deliverable 3.4).**

➤ [Read the full report](#)

### Context

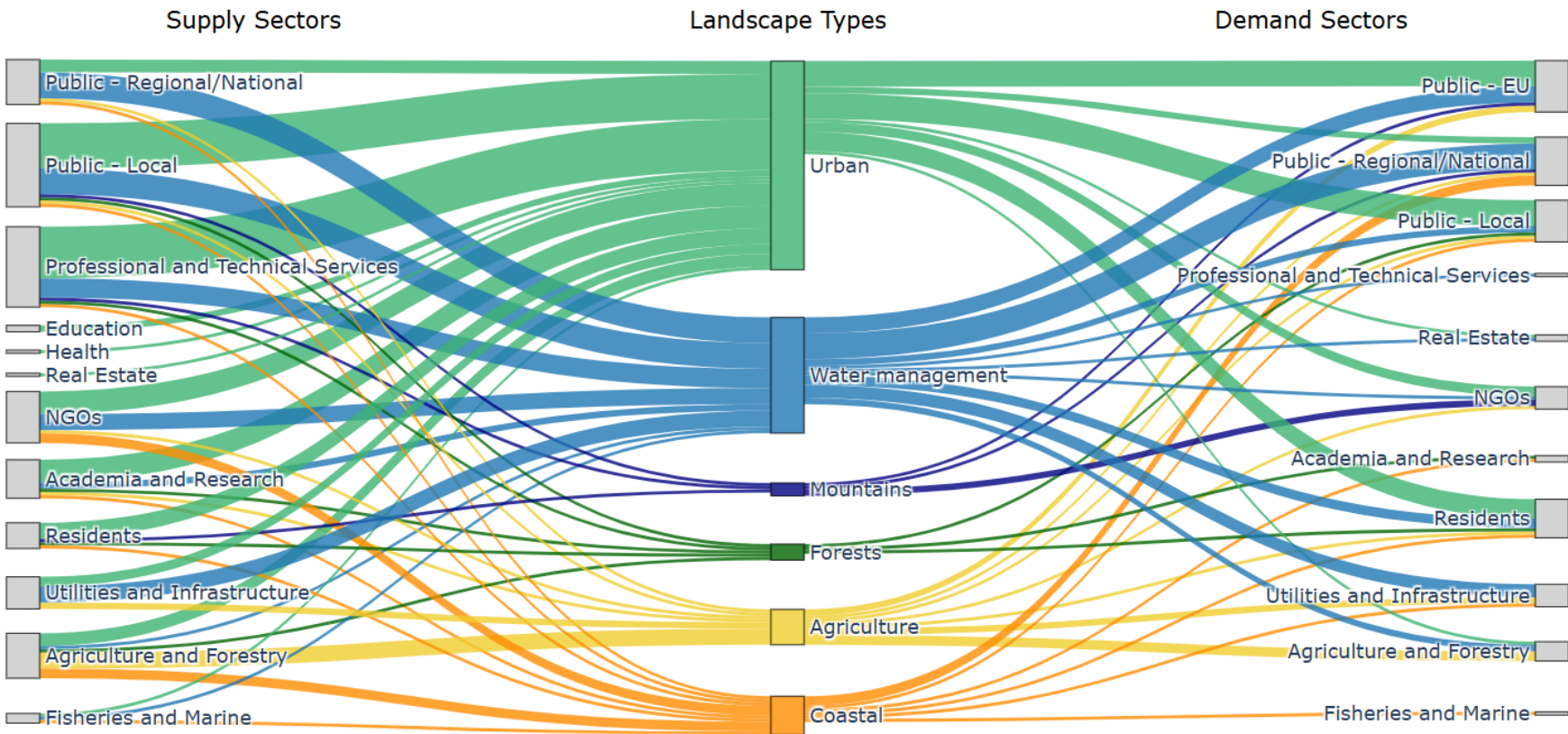
Currently, there is a range of Nature-based Solutions (NbS) emerging, primarily supported by strong public funding, but significant gaps remain in understanding what drives or limits their demand and supply, and how to mainstream them within specific value chains. Closing this gap is essential for developing targeted policies, financial tools, and attracting private sector investment at scale.

This report examines the integration of NbS into economic value chains in Europe, highlighting barriers and enablers for scaling and market development. It aligns with Invest4Nature's goal to increase investment and adoption of NbS, recognizing their vital role in climate adaptation, disaster risk reduction, and sustainable development.

Based on a systematic literature review, the report outlines how demand for NbS arises—who drives it, why, and under what conditions across regions and sectors—and explores the structure and dynamics of NbS supply chains, identifying key providers, challenges, and opportunities. It emphasizes the interaction between supply and demand through market mechanisms, value chains, and enabling factors like stakeholder and community engagement that promote broader adoption.

Digital version: Lienhart, L. et al. (2026) <https://doi.org/10.5281/zenodo.18399748>

Supply and demand for NbS



Supply and demand interactions across the six landscape types identified in the systematic literature review.

Supply of NbS

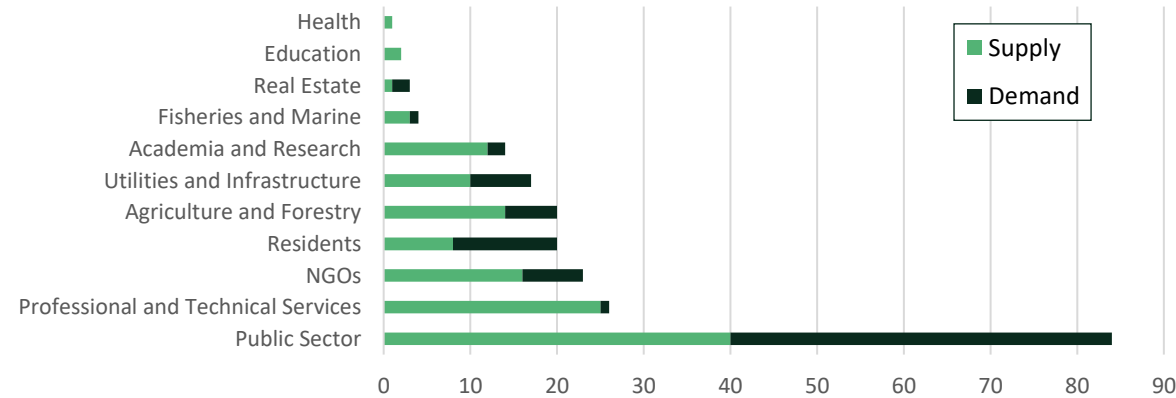
Professional and technical services (25 supply linkages) form the second-largest NbS supply sector after the public sector, reflecting the need for specialized Nature-based Enterprises (NbE) implementation. They are followed by NGOs (16), agriculture and forestry (14), and academia and research (12), which often contribute to research and monitoring. Residents (8) typically participate in co-design and occasionally in maintenance. Overall, NbS supply remains heavily reliant on the public sector’s initiating and coordinating role.

Demand of NbS

Public sector demand dominates NbS, accounting for about half of all linkages. This aligns with Invest4Nature Deliverable D3.3 (Tedeschini et al. 2024), which found the public sector involved in 82% of NbS financing through direct funding, public-private partnerships (PPPs), or blended finance. Residents also represent notable demand (12 linkages), particularly for urban NbS and in hazard-prone areas. NGOs, while key suppliers, also generate significant demand (7 linkages), reflecting their

Public Sector

Both figures show the strong role of the public sector in both supplying and demanding NbS. On the supply side, local entities are the main actors. On the demand side, multiple governance levels are involved, with funding often coming from EU, national, regional, and local sources.



Frequency of supply and demand linkages per sector.

## Barriers and Enablers of NbS

**Barriers and enablers affecting NbS** implementation, replication, and upscaling can arise throughout the whole project lifecycle, influencing both effectiveness and feasibility. Most occur during the **initiation phase**, while in the **implementation phase** several reoccur, along with added complexities and delays from permitting. **Operational challenges** center on long-term monitoring, financing, and maintenance responsibilities. Addressing these barriers and **leveraging enablers at each stage** is essential to ensure not only the successful delivery of NbS projects but also their long-term sustainability and integration into policy and practice.

### Barriers

Barriers to the initiation, implementation, and operation of NbS span cultural, institutional, regional, political, knowledge-based, financial, legal, and operational domains.

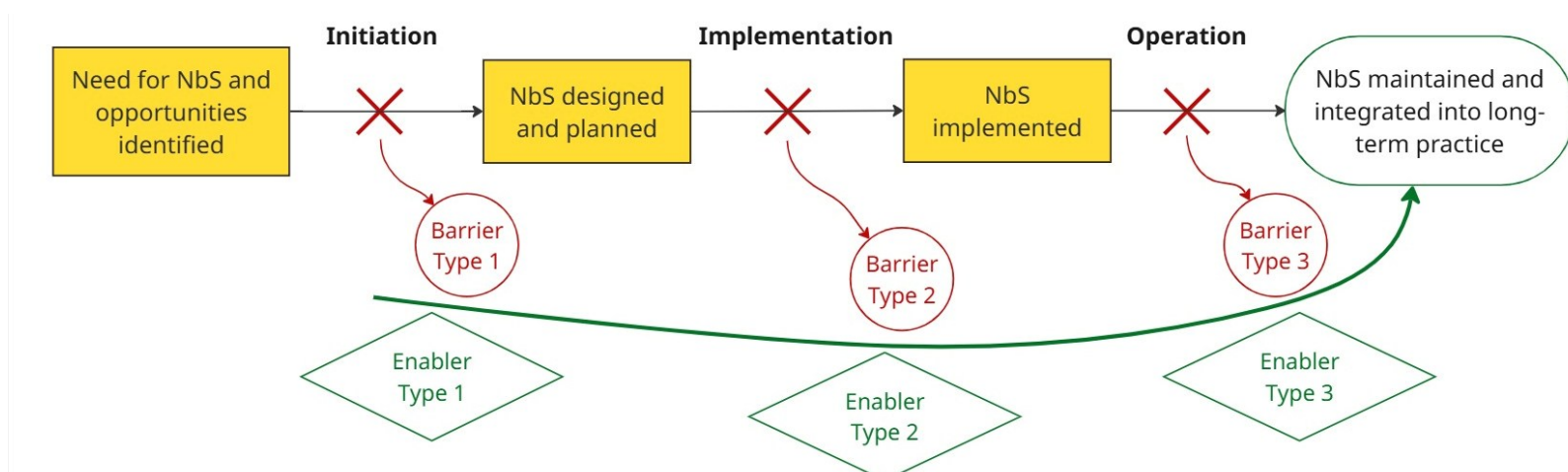
Significant **knowledge and skills gaps** hinder progress, while **institutional inertia and silos** cause delays in funding, legal integration, and operations. **Regulatory gaps**, unclear land ownership, and financial constraints also pose major challenges. Throughout the project lifecycle, a **lack of sustained political will** and opposition from interest groups can block or delay NbS initiatives. Additionally, local climate conditions can impact the feasibility of NbS implementation, e.g. for blue-green infrastructure or seagrass restoration.

### Enablers

To overcome barriers across sectors and governance levels, several key enablers consistently emerge. **Strong stakeholder engagement and co-creation** processes are critical across cultural, institutional, and legal contexts, fostering acceptance, shared ownership, and long-term commitment. **Capacity building and improved knowledge** on NbS further enable effective design, implementation, and maintenance.

**Interdisciplinary and cross-departmental collaboration**, along with co-production involving the private sector, strengthen innovation and operational integration. **Demonstrating the visible success of pilot initiatives** and sharing lessons learned builds trust, illustrates tangible benefits, and reinforces institutional learning.

Finally, **embedding NbS within legal and urban planning frameworks**, ensuring **long-term funding** and financial mechanisms beyond project lifecycles, and clarifying maintenance responsibilities are essential to secure the continuity and upscaling of NbS in practice.



Barriers and enablers for implementation, replication or upscaling of NbS categorized by stage of process.



## Recommendations

### 1. Strengthen NbS coordination and engagement of the private sector

Stakeholder engagement in NbS often relies heavily on public sector coordination. To address this, two actions are recommended: strengthen knowledge and financial support for stakeholder engagement, ecosystem building, and co-creation; and enhance private sector access to NbS implementation and coordination to reduce dependence on public leadership.

### 2. Establish long-term EU funding mechanisms for NbS maintenance

EU funding should support long-term operation and maintenance of local NbS projects, easing uptake by smaller municipalities and private actors. Stable financing, legal clarity, and incentives for private sector involvement—like guarantees and blended finance—are essential.

### 3. Streamline NbS into policies to boost demand

Policies that boost demand from both public and private sectors are essential. To build public support, effective communication of NbS co-benefits like enhanced urban livability, health, education, and biodiversity is crucial.

### 4. Mobilize private sector investment through EU legislation

The EU taxonomy is crucial for directing private investment toward sustainable NbS and revising it to fully include NbS will boost financing. To become taxonomy-aligned and investment-ready, NbS projects need skilled staff, proper management structures, investor education, and pilot initiatives to demonstrate NbS profitability.

### 5. Align policies on all governance levels

Establish structured coordination across all governance levels to streamline administration, funding, and regulations for NbS, ensuring policy coherence that eases local access to EU funds, knowledge sharing, and permits. Promote cross-departmental cooperation through coordinating bodies or joint funding, while increasing NbS literacy via awareness campaigns, staff training, and best-practice exchanges.

### 6. Strengthen local supply and community involvement

EU-supported programs should provide technical assistance, capacity-building, and knowledge transfer to local authorities, NbEs, and NGOs implementing NbS. Member States must establish national competency hubs to ensure consistent quality, offering training on implementation, and EU project participation to facilitate knowledge exchange.

### 7. Standardize environmental monitoring and reporting

A market-driven evolution of NbS requires standardized data to ensure accountability, scalability, and attract private investment. While monitoring frameworks exists, EU-level policies are needed to standardize NbS monitoring and reporting.



# The economics of nature-based solutions

## Invest4Nature

Invest4Nature aims to attract investments in one of the key measures of climate change adaptation and risk reduction: **Nature-based Solutions (NbS)**

In Invest4Nature’s vision to create flourishing markets for nature-based solutions (NbS), it **aims** to:

- Create thorough understanding **of the economic costs and benefits** of NbS to enable the creation of business models and suitable market conditions for NbS
- Develop a **decision support** tool to enable private & public stakeholders make **informed decisions** on NbS investments
- Create a multi-stakeholder **online marketplace**
- Establish a European NbS **investment community**

## Partners

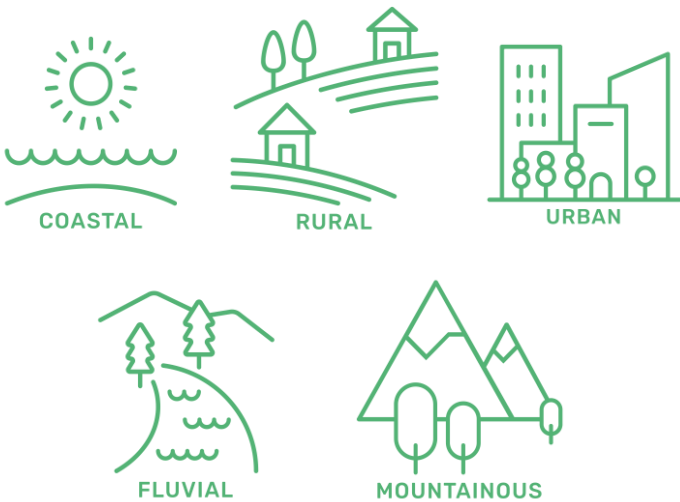
### Coordinator



## 5 Living Labs

**Austria, Denmark, Norway, Poland and Portugal**

with **NbS cases** covering five landscapes:



### NbS Living Labs

